

# Instapak® 901/970

Foam-in-Place Packaging System

User's Guide





**Sealed Air**

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Original instructions.

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## IMPORTANT SAFETY PRECAUTIONS

Read and thoroughly understand this guide.

Warning Symbols:



This "**BOLT OF LIGHTNING**" indicates uninsulated material within your unit that may cause an electrical shock. **DO NOT REMOVE THE PRODUCT COVER.**



This "**EXCLAMATION POINT**" calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

Before operating your Instapak® system, read and understand the "RECOMMENDATIONS FOR THE SAFE USE AND HANDLING OF INSTAPAK® FOAM-IN-PLACE CHEMICALS" bulletin, and the Material Safety Data Sheets (MSDSs) provided for Instapak® products.

If additional copies of the "RECOMMENDATIONS FOR THE SAFE USE AND HANDLING OF INSTAPAK® FOAM-IN-PLACE CHEMICALS" bulletin or MSDSs are needed, please contact your local Sealed Air® sales or account representative.



**WARNING:** To avoid overexposure to MDI vapors, never dispense Instapak® "A" chemical unless making Instapak® packaging foam. If system is not in normal operating condition, DO NOT USE.



This "**GOGGLES**" symbol calls attention to the need to wear protective eyewear with side shields while performing operating, maintenance, and repair procedures.

Be sure to turn the console **OFF** before performing maintenance procedures on the Instapak® 901/970 system.

Do not attempt to repair or modify the Instapak® 901/970 system other than the procedures contained in the troubleshooting section of this guide. All repairs must be done by authorized Sealed Air® service personnel.

Do not remove the covers. The covers should be removed only by authorized Sealed Air® service personnel. Opening the covers exposes dangerous electrical shock hazards.

**BEFORE OPERATING, MAKE SURE THAT:**

- The operator has received full training by authorized Sealed Air® personnel.
- The system is plugged into a properly rated, grounded outlet. (Refer to Section 1.3 of this guide)

Failure to properly ground the system could create an electrical shock hazard.

Inspect the Instapak® 901/970 system at regular intervals to ensure that:

- a. Component hoses and cables are not cut, broken or damaged.
- b. No components of the dispenser, console or pumps are loose.
- c. All controls and indicators function properly.

If operation of the system differs from the descriptions in this guide, turn the system off and disconnect the main power until the unit can be inspected by a Sealed Air® representative.

We strongly recommend that customers use only Instapak® chemicals with Instapak® systems. We can assume no responsibility when other chemicals are used in Instapak® systems, and we reserve the right to refuse to service any Instapak® systems if non-Instapak® chemicals or parts have been used. Service includes, without limitation, providing repairs and maintenance services, supplies and parts.

**SHOULD YOU ENCOUNTER A PROBLEM WITH YOUR INSTAPAK® 901/970 SYSTEM THAT YOU CANNOT FIX WITH THE HELP OF THIS MANUAL, PLEASE CALL SEALED AIR FOR TECHNICAL ASSISTANCE.**

In accordance with the provisions of the EC Machinery Directive (2006/42/EC), EC Low Voltage Directive (2006/95/EC) and EC Electromagnetic Directive (2004/108/EC) the following applicable standards documents were used:

For all 901 and 970 systems:

EN 60204-1, EN 13849-1, EN 14121,  
EN ISO 12100-1, EN ISO 12100-2,  
EN ISO 13857, EN 349, EN 953-1,  
EN 55011, EN 61000-4-2, EN 61000-4-3,  
EN 61000-4-4, EN 61000-4-5, EN 61000-4-6,  
EN 61000-4-11, EN 61000-6-2, EN 61000-6-4

**AIRBORNE NOISE EMISSION**

For all 901 and 970 systems, the continuous A-weight sound pressure level does not exceed 70 dB(A) during normal operations.

**NOTICE**

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## 1.0 OVERVIEW

The Instapak® 901/970 foam packaging system dispenses a mixture of Component "A" and Component "B". When mixed, the "A" and "B" components react with each other to produce high quality polyurethane packaging foam.

### 1.1 SYSTEM DESCRIPTION

The Instapak® 901/970 system is made up of 4 major parts. Refer to Figure 1-1, page 1-3.

- 1) Set of two electric pumps.
- 2) Electrically operated dispenser.
- 3) Computer operated console.
- 4) Heated component hoses.

### 1.2 SYSTEM OPERATION

The "A" and "B" components are pumped from the supply containers by the "A" and "B" pumps into the heated hoses and through the dispenser.

The dispenser is supplied with a holster that keeps the tip clean and ready for use. The hoses are suspended from a tool balancer that supports their weight and allows them to be maneuvered easily.

### 1.3 ELECTRICAL REQUIREMENTS

SYSTEM	RECEPTACLE TYPE	A/C VOLTAGE	PHASE	CURRENT
Instapak® 901/970	NEMA L6-30R	200 - 240 VAC, 50/60Hz	Single Phase	30 Amperes
Instapak® 901Y/970Y	CEE type CT 516/6h	380 - 415 VAC, 50/60Hz	3 N PE	16 Amperes
Instapak® 901D/970D	CEE type CT 432/9h	220 - 240 VAC, 50/60Hz	3 PE	20 Amperes

**NOTE:** The Instapak 970 system requires 7 bar clean dry shop air at the chemical container location.

### 1.4 SPACE REQUIREMENTS

The location selected for the Instapak® system should meet the following criteria:

- Easily accessible space for the "A" and "B" component containers. The containers must be located within 1.5 m of the console, and within 3 m of the dispenser.
- A suitable wall space to accommodate the control console. The power outlet for the console must be within 1,5 m of the console, and easily accessible to the operator. The console should be fastened to the wall approx. 1,5 m from the floor to the center of the console, to allow easy access by the operator.
- A structure at least 3,5 m high, strong enough to hang the tool balancer and component hoses.
- An Instapak® workstation is also available for ease of installation. Ask your Sealed Air® account representative for details.

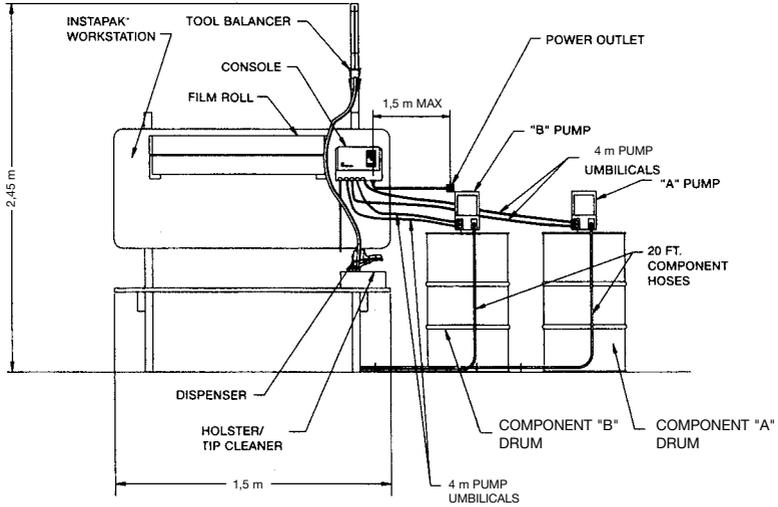


Fig 1-1 Typical Layout of the Instapak® 901 System

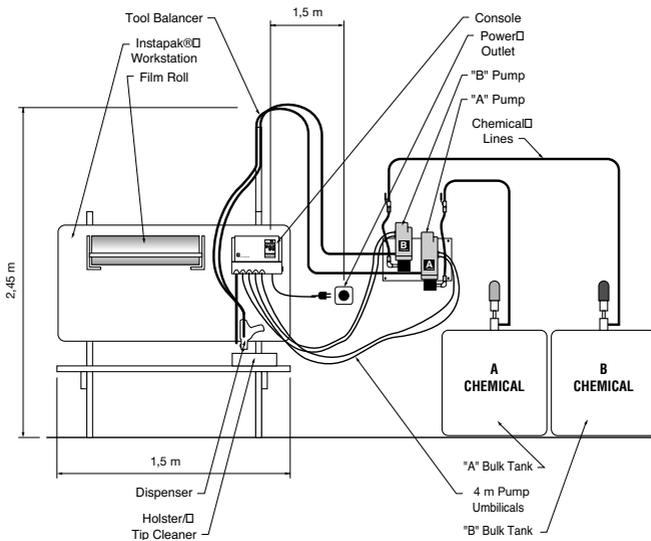


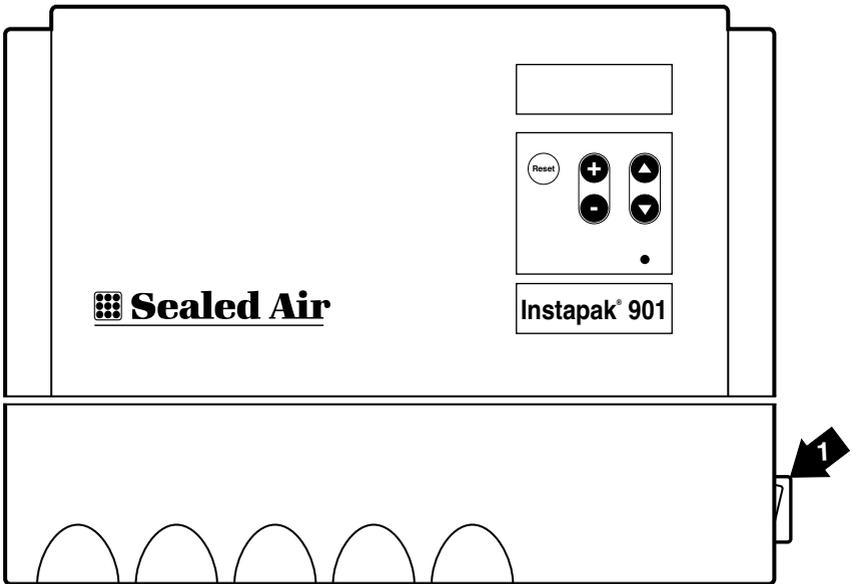
Fig 1-2 Typical Layout of the Instapak® 970 System

NOTES

## 2.0 OPERATION

### 2.1 THE CONSOLE CONTROL PANEL

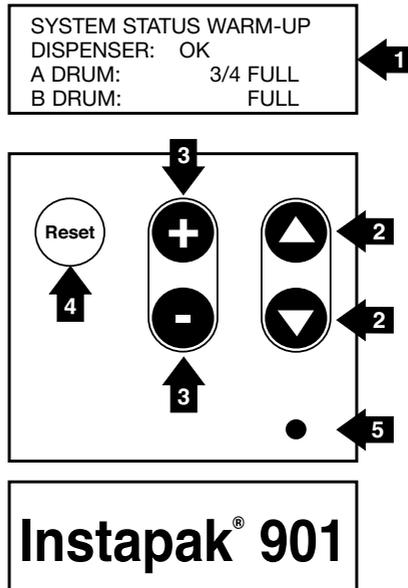
To operate the Instapak® 901/970 system, push the main power switch (1), on the right side of the console, to the "ON" position.



Main Power Switch

The Instapak® 901/970 System Control Console

The controls are located on the front of the console. See the figure below.



### **1** → The Display.

This window displays messages from the system and a number of options you can change within the system.

### **2** → The Menu UP ▲ and Menu DOWN ▼ keys.

These keys allow you to change the window being displayed. Push the Menu UP ▲ key to change to the next window and push the Menu DOWN ▼ key to change to the previous window shown.

### **3** → The Adjust PLUS + and Adjust MINUS - keys.

These keys allow you to change the settings. Use the PLUS (+) or the MINUS (-) key to increase or decrease the value by one unit. Hold down a key, and the value will continue to change at a faster rate.

### **4** → The RESET key.

Push the RESET key to restart the 901/970 system after a shut-down has occurred.

### **5** → The LED.

This will light up when the system is on.

## 2.2 SYSTEM START-UP



**CAUTION**  
**SAFETY GLASSES WITH SIDES MUST BE WORN WHILE OPERATING INSTAPAK® EQUIPMENT.**

When the system is first turned on, the displays will read all zeros, then change to all ones. Then the display will read:

**SYSTEM STATUS WARM-UP**  
**DISPENSER: OK**  
**A DRUM: FULL**  
**B DRUM: FULL**

The display will show this message until the system has reached the proper operating temperature and pressure. Then, the display will read:

**SYSTEM STATUS READY**  
**DISPENSER: OK**  
**A DRUM: FULL**  
**B DRUM: FULL**

**NOTE:** "A" and "B" drum level will not be shown on 970 systems.

You are now ready to dispense Instapak® foam.

- Remove the dispenser from the holster.
- Squeeze the trigger to dispense foam.
- Release the trigger to stop dispensing foam.
- Place the dispenser back into the holster.

## 2.3 CONTROL SETTINGS

This section explains how to adjust basic settings: Timer, Flow Rate, and Temperatures.

The settings are made by observing the display and then using the keys on the control console to make selections or change numerical values.

The display shows a series of menus or "windows." Moving from one window to another is accomplished by using the Menu UP ▲ and Menu DOWN ▼ keys.

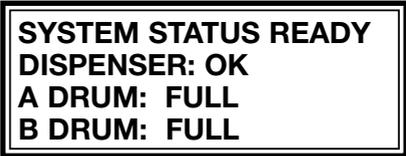
## 2.3.1 TIMER MODES

You can choose between two modes, Manual Shot and Single Shot.

### 2.3.1.1 Manual Shot Mode

In Manual Shot mode the shot will last as long as you pull the trigger. Use Manual Shot mode when you wish to manually control the foam dispensing process. The system is configured to operate in the Manual Shot mode after start-up. No adjustment to the system is necessary to permit manual operation.

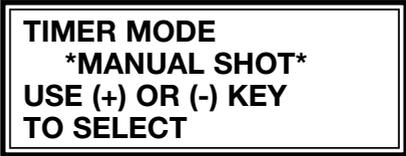
However, in Manual Shot mode you can, if you wish, determine the length of any shot you have made. This information may be helpful for programming timed shots into the system. To determine the length of a manual shot, begin at the SYSTEM STATUS WINDOW:



**SYSTEM STATUS READY  
DISPENSER: OK  
A DRUM: FULL  
B DRUM: FULL**

**NOTE:** "A" and "B" drum level will not be shown on 970 systems.

- Press the Menu UP ▲ key to show the TIMER MODE WINDOW:



**TIMER MODE  
\*MANUAL SHOT\*  
USE (+) OR (-) KEY  
TO SELECT**

- Press the Menu UP ▲ key again to show the LAST SHOT WINDOW:



**LAST SHOT WAS  
0.00 SECONDS**

- Squeeze the trigger on the dispenser. Foam will be dispensed and the timer will count up from 0.00 seconds until you release the trigger. The actual time of the shot will be shown in the LAST SHOT WINDOW, for example:

**LAST SHOT WAS  
2.33 SECONDS**

The timer will automatically reset to 0.00 and time the next shot when the trigger is squeezed.

### 2.3.1.2 Single Shot Mode

In Single Shot mode, when you squeeze the trigger, the shot will last as long as the timed setting. Use this mode when you have a repetitive task requiring the same amount of foam each time.

To set the length of a single timed shot, begin at the SYSTEM STATUS WINDOW:

**SYSTEM STATUS READY  
DISPENSER: OK  
A DRUM: FULL  
B DRUM: FULL**

**NOTE:** "A" and "B" drum level will not be shown on 970 systems.

- Press the Menu UP ▲ key to show the TIMER MODE WINDOW:

**TIMER MODE  
\*MANUAL SHOT\*  
USE (+) OR (-) KEY  
TO SELECT**

- Press the PLUS (+) or MINUS (-) key to select Single Shot Mode:

**TIMER MODE  
\*SINGLE SHOT\*  
USE (+) OR (-) KEY  
TO SELECT**

- Press the Menu UP ▲ key and the display will read:

**TIMER SET FOR:  
5.00 SECONDS  
USE (+) OR (-) KEY  
TO ADJUST**

- Press the PLUS (+) or MINUS (-) key to set the desired length (in seconds) of the single shot.

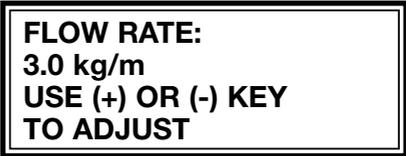
You can now dispense a timed shot. When you pull the trigger on the dispenser, foam will be dispensed and the display will count down to 0.00 seconds. The shot will stop automatically at that time. The shot will also automatically stop if you let go of the trigger.

At the end of the shot, the display will reset to the same number of seconds. All subsequent shots will change automatically to the new set point until the timer setting is changed again.

## 2.3.2 SETTING FLOW RATE - THE FLOW RATE WINDOW

The flow rate should be set to suit your particular packaging applications. A small box will use a slower flow rate; a large box will use a faster rate.

- From the SYSTEM STATUS WINDOW, press the Menu UP ▲ key THREE times and the display will read:



**FLOW RATE:  
3.0 kg/m  
USE (+) OR (-) KEY  
TO ADJUST**

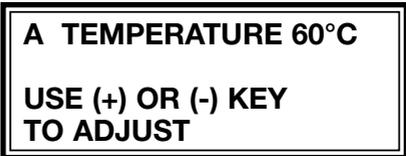
- Press the PLUS (+) or MINUS (-) key to change the rate at which foam is dispensed. The higher the number, the faster foam is dispensed (kilogram per minute).

## 2.3.3 SETTING TEMPERATURES - THE TEMPERATURE WINDOWS

The temperature windows are used to control the temperatures of the foam components in the hoses.

### 2.3.3.1 The "A" Temperature Window

- From the FLOW RATE WINDOW, press the Menu UP ▲ key to move to the "A" TEMPERATURE WINDOW.



**A TEMPERATURE 60°C  
USE (+) OR (-) KEY  
TO ADJUST**

- Press the PLUS (+) or MINUS (-) key to adjust the "A" component temperature value.

### 2.3.3.2 The "B" Temperature Window

- From the "A" TEMPERATURE WINDOW, press the Menu UP ▲ key to move to the "B" TEMPERATURE WINDOW.

<p><b>B TEMPERATURE 60°C</b></p> <p><b>USE (+) OR (-) KEY TO ADJUST</b></p>
---

- Press the PLUS (+) or MINUS (-) key to adjust the "B" component temperature value.

## 2.4 ADDITIONAL FEATURES

The following additional features are available when enabled by your account representative:

**Shot Sequence Mode** - A series of timed shots, up to 16, can be stored in memory. Each shot will last for as long as the timer setting, and then be ready for the next shot in the sequence. At the end of the sequence the timer resets to the first shot.

**Shot Storage Feature** - This feature allows you to program and store up to 10 single shots, 10 shot sequences, or any combination thereof into memory. Each stored shot will include shot length, shot sequence, if any, and flow rate.

**Language Feature** - This feature allows the display to show information in languages other than English.

To use these features you will need to select them as described below.

### 2.4.1 THE SHOT SEQUENCE MODE

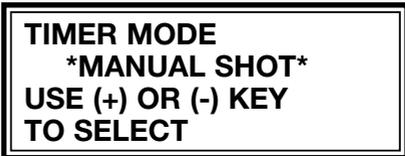
To choose the Shot Sequence Mode begin at the SYSTEM STATUS WINDOW:



**SYSTEM STATUS READY  
DISPENSER: OK  
A DRUM: FULL  
B DRUM: FULL**

NOTE: "A" and "B" drum level will not be shown on 970 systems.

- Press the Menu UP ▲ key to access the TIMER MODE WINDOW:



**TIMER MODE  
\*MANUAL SHOT\*  
USE (+) OR (-) KEY  
TO SELECT**

- Press the PLUS (+) OR MINUS (-) key to select Shot Sequence Mode.

**TIMER MODE  
\*SHOT SEQUENCE\*  
USE (+) OR (-) KEY  
TO SELECT**

Several additional windows are now used to set the desired number and length of shots as follows:

### **2.4.1.1 Setting Number of Shots**

- Press the Menu UP ▲ key to change the Number of Shots Window:

**NUMBER OF SHOTS IN  
THE SEQUENCE: 3  
USE (+) OR (-) KEY  
TO SELECT**

- Press the PLUS (+) or MINUS (-) key to enter the number of shots. This can be up to 16 shots.

### **2.4.1.2 Shot Sequence Windows**

Use the SHOT SEQUENCE WINDOWS to set the times for each shot in the sequence. The following example shows how to set times for a sequence of three shots.

#### **Shot Number 1 Window**

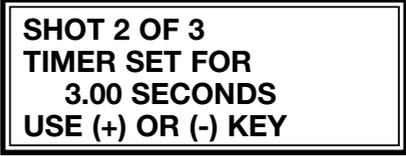
- Press the Menu UP ▲ key and the display will read:

**SHOT 1 OF 3  
TIMER SET FOR  
2.50 SECONDS  
USE (+) OR (-) KEY**

- Press the PLUS (+) or MINUS (-) key to set the time of the first shot, in this example 2.50 seconds.

## Shot Number 2 Window

- Press the Menu UP ▲ key and the display will read:

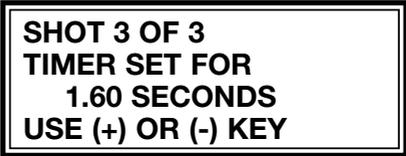


SHOT 2 OF 3  
TIMER SET FOR  
3.00 SECONDS  
USE (+) OR (-) KEY

- Press the PLUS (+) or MINUS (-) key to set the time of the second shot.

## Shot Number 3 Window

- Press the Menu UP ▲ key and the display will read:

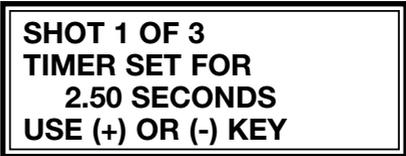


SHOT 3 OF 3  
TIMER SET FOR  
1.60 SECONDS  
USE (+) OR (-) KEY

- Press the PLUS (+) or MINUS (-) key to set the time of the third shot.

### 2.4.1.3 To Run the Sequence of Shots

To run the sequence just selected press the RESET key. The display will read:



SHOT 1 OF 3  
TIMER SET FOR  
2.50 SECONDS  
USE (+) OR (-) KEY

- Squeeze the trigger on the dispenser. Foam will be dispensed for the amount of time set for shot number 1.
- Squeeze the trigger again for the second and each additional shot in the sequence. At the end of the sequence, the timer will automatically reset to the first shot.

If it is necessary to change the timer setting for any shot, use the Menu UP ▲ key to reach the window displaying the shot you wish to change,

and the PLUS (+) or MINUS (-) key to change the setting. This new setting will then control subsequent shots.

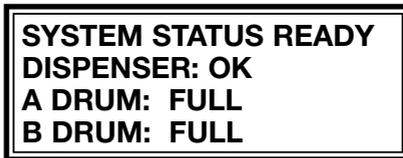
## **2.4.2 SHOT STORAGE FEATURE**

The Shot Storage Feature allows up to 10 different single shots, shot sequences, or any combination of the two to be entered into memory.

Use the Shot Storage Feature when you make several different types of molded cushions. For example, you may use a three shot sequence to make a molded cushion on Monday, Wednesday, and Friday, and a single shot to make another cushion on Tuesday and Thursday. In Shot Storage Mode, you can store the shot sequence as SEQUENCE #1 and the single shot as SHOT #2. This way, you don't have to set up the machine each time you change applications.

### **2.4.2.1 Turning On the Shot Storage Feature - The Storage Mode Window**

To enter shot information into memory and run stored shots, you must first turn the Shot Storage Mode "ON". From the SYSTEM STATUS WINDOW:



**SYSTEM STATUS READY  
DISPENSER: OK  
A DRUM: FULL  
B DRUM: FULL**

**NOTE:** "A" and "B" drum level will not be shown on 970 systems.

- Press the Menu UP ▲ key and the display will read:



**PRESS RESET KEY TO  
TURN SHOT STORAGE  
"ON"**

- Press the RESET key and the display will read:

**PRESS RESET KEY TO  
TURN SHOT STORAGE  
"OFF"**

Shot storage is now "ON".

### 2.4.2.2 Storing Shot or Shot Sequence Number 1

- Press the Menu UP ▲ key ONCE and the display will read:

**RUN SHOT # 1  
FROM STORAGE  
USE (+) OR (-) KEY  
TO SELECT A SHOT**

- Press the Menu UP ▲ key and the display will read:

**TIMER MODE  
\*SINGLE SHOT\*  
USE (+) OR (-) KEY  
TO SELECT**

You are now at the first in the series of windows as described in earlier sections. Use the Menu UP ▲ or Menu DOWN ▼ key to move between different windows; use the PLUS (+) or MINUS (-) key to adjust the different settings. These steps are exactly as described in sections 2.3.1.2 and 2.4.1 for the operation of the system in single shot or shot sequence mode. However, the selections are now being entered into memory as shot number 1.

### 2.4.2.3 Storing Shot or Shot Sequences Numbers 2-10

- Press the Menu UP ▲ or Menu DOWN ▼ key, several times if necessary, until the display reads:

**RUN SHOT # 1  
FROM STORAGE  
USE (+) OR (-) KEY  
TO SELECT A SHOT**

- Press the PLUS (+) or MINUS (-) key to select the next shot or shot sequence to store. Then store shot or shot sequence numbers 2-10 in the same manner as for shot or shot sequence number 1.

### 2.4.2.4 Running Stored Shots

After a shot or shot sequence is stored, it can be run as follows:

- Press the Menu DOWN ▼ key until the display reads:

**RUN SHOT # 1  
FROM STORAGE  
USE (+) OR (-) KEY  
TO SELECT A SHOT**

- Press the PLUS (+) or MINUS (-) key to select a shot or shot sequence number (1-10) to run. If the item selected is a single shot the display will read "Shot" as above. If the item selected is a shot sequence, the display will read "Sequence", for example:

**RUN SEQUENCE # 6  
FROM STORAGE  
USE (+) OR (-) KEY  
TO SELECT A SHOT**

- Squeeze the trigger and foam will be dispensed according to the stored information, either a single shot or shot sequence depending on what was programmed.

### 2.4.2.5 Modifying Stored Shots

Any of the stored information can be changed while in the Shot Storage Mode. Just move to the window containing the information you wish to change, and use the PLUS (+) or MINUS (-) key to make the change. The information is automatically updated in memory.

### 2.4.2.6 Exiting the Shot Storage Function

Exit the storage feature by turning Shot Storage Mode "OFF" as follows:

- Press the Menu UP ▲ or Menu DOWN ▼ key until the display reads:



**PRESS RESET KEY TO  
TURN SHOT STORAGE  
"OFF"**

- Press the RESET key and the display will read:



**PRESS RESET KEY TO  
TURN SHOT STORAGE  
"ON"**

The storage feature is now "OFF" and the system is ready to run shots without using information in memory. You can read the normal set of menus without activating the storage feature by using the Menu UP ▲ and Menu DOWN ▼ keys. However, the information selected remains stored and can be accessed at any time by turning the Shot Storage Mode back "ON" as described earlier in 2.4.2.1.

### 2.4.3 LANGUAGE SELECTION

- From the SYSTEM STATUS WINDOW press the Menu DOWN ▼ key. The display will read:

**SELECT LANGUAGE**  
**\*ENGLISH\***  
**USE (+) OR (-) KEY**  
**TO SELECT**

- Press the PLUS (+) OR MINUS (-) key to select the language you will see while using your Instapak® 901/970 system. You may have a choice of:

\*ENGLISH\*

\*SPANISH - EUROPEAN\*

\*SPANISH - AMERICAN\*

\*JAPANESE\*

\*FRENCH\*

\*ITALIANO\*

\*DUTCH\*

\*GERMAN\*

\*SWEDISH\*

\*POLISH\*

\*CZECH\*

\*PORTUGUESE\*

NOTES



## 3.0 PACKAGING SUGGESTIONS

### 3.1 FOAM-IN-PLACE PACKAGING METHOD



Instapak® foam is dispensed into a carton lined with high strength Instamate® packaging film.



The Instamate® packaging film is folded over and the item to be packaged is placed on top of the rising foam.



A second sheet of Instamate® packaging film is placed over the item, and more Instapak® foam is dispensed.



The customer receives the item undamaged.

### 3.2 PRE-MOLDING PACKAGING METHOD



A simple wood mold is used to produce the desired cushion shape.



Instamate® packaging film is placed into the mold and Instapak® foam is dispensed into the mold cavity. The film is folded over the rising foam. Make sure enough film is used to cover the lid of the mold. Close the lid. The foam rises into the proper shape, and the cushion is removed.



The product as packaged in pre-molded cushions.

NOTES

## 4.0 MAINTENANCE

### 4.1 PREVENTIVE MAINTENANCE SCHEDULE

Dispenser cleaning	Once a week
Holster cleaning	Once a week
Check hoses for damage	Before turning on system
Check system for loose parts	Before turning on system
Check component levels	Once a week

**(Do not leave pumps in empty drums!)**



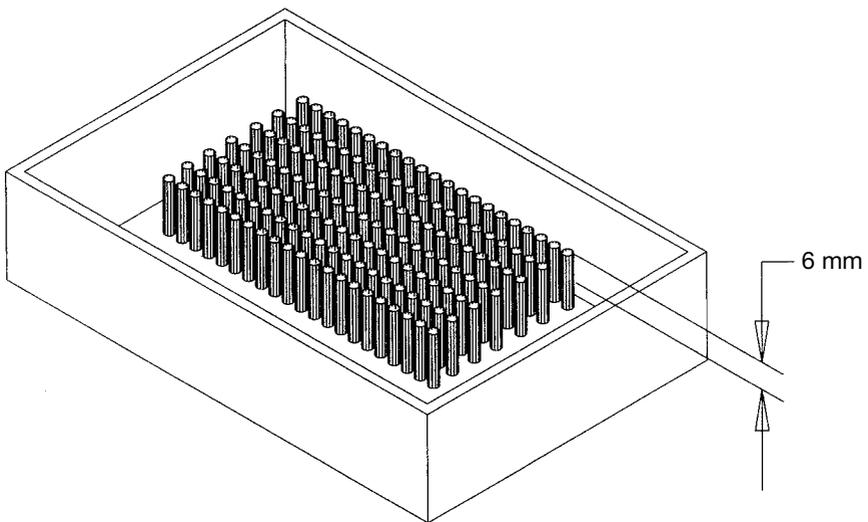
#### **CAUTION**

**SAFETY GLASSES AND PROTECTIVE GLOVES (BUTYL RUBBER, NITRILE RUBBER, POLYVINYL ALCOHOL, OR OTHER SUITABLE MATERIAL) MUST BE WORN WHILE PERFORMING THE FOLLOWING PROCEDURE.**

## 4.2 HOLSTER MAINTENANCE

Refill the 901/970 dispenser holster with Instapak® Dispenser Solution when the level falls 6 mm below the top of the wire bristles.

Replace the wire bristle brush when the bristles become worn or bent:  
(Part Number 3476AB-01)



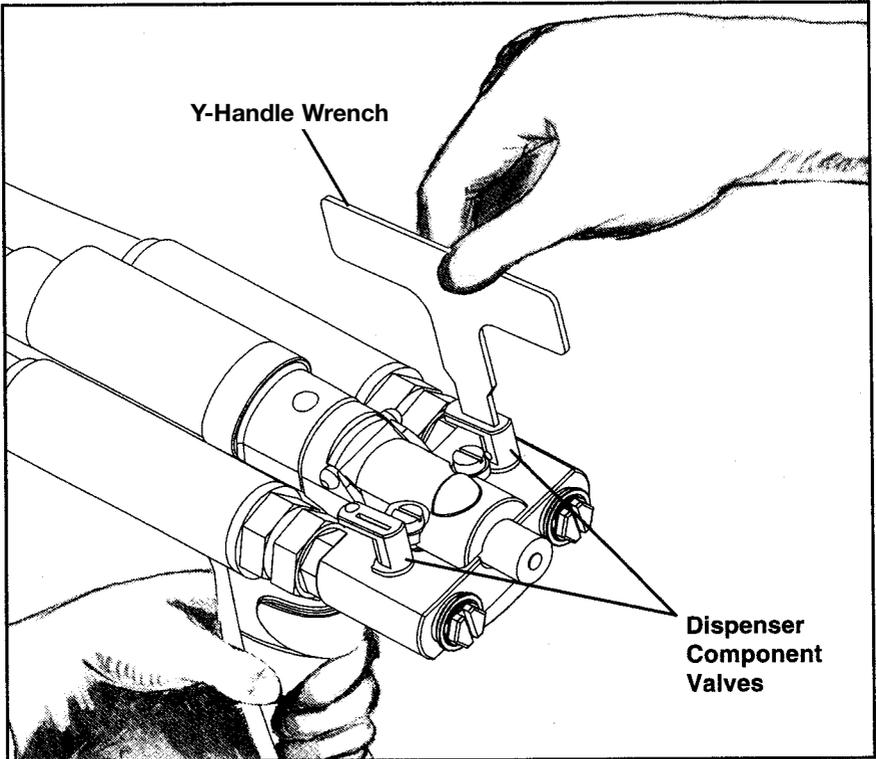
**NOTE:** Follow the disposal procedures outlined in the "Recommendations for the Safe Use and Handling of Instapak Foam-in-Place Chemicals" bulletin for residual amount of Instapak® Dispenser Solution.

### 4.3 CARTRIDGE AND DISPENSER MAINTENANCE

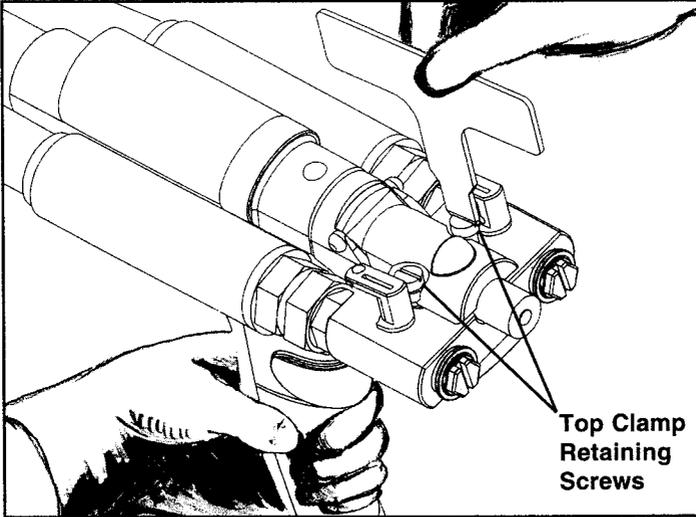


#### CAUTION

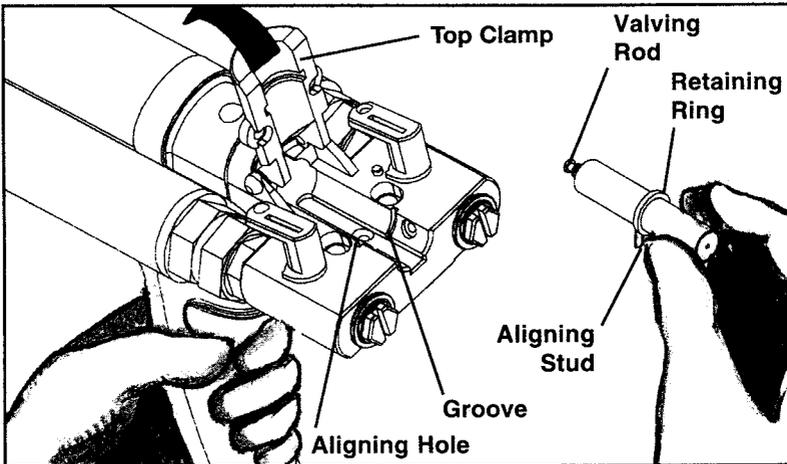
**SAFETY GLASSES AND PROTECTIVE GLOVES (BUTYL RUBBER, NITRILE RUBBER, POLYVINYL ALCOHOL, OR OTHER SUITABLE MATERIAL) MUST BE WORN WHILE PERFORMING THE FOLLOWING PROCEDURE.**



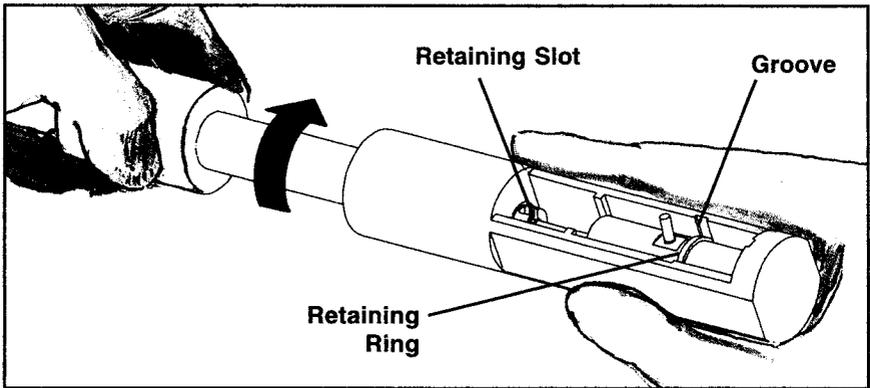
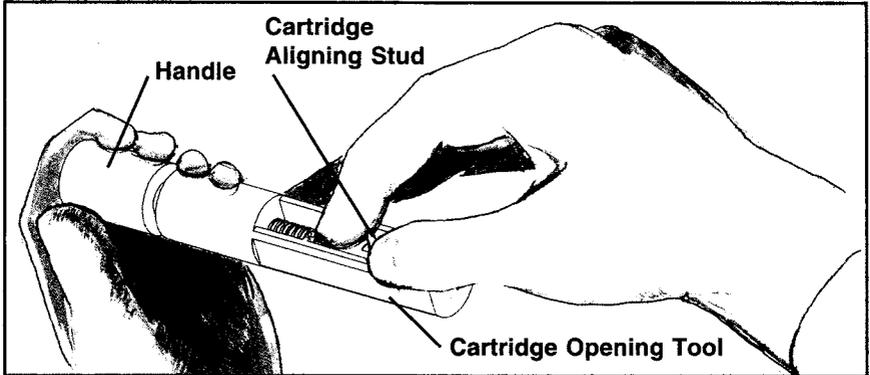
1.
  - Turn the console "OFF".
  - Turn each dispenser component valve to the "OFF" position to stop component flow to the cartridge.



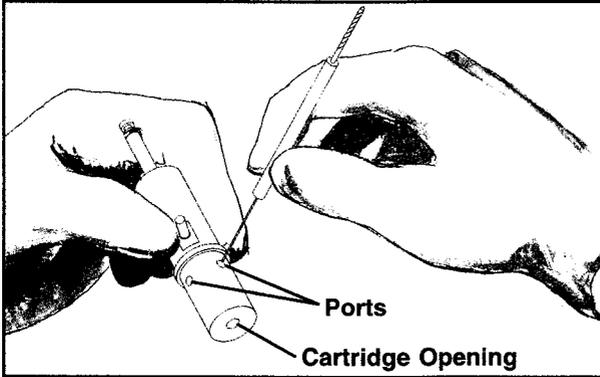
2. • Loosen the top clamp retaining screws with the Y-handle wrench.



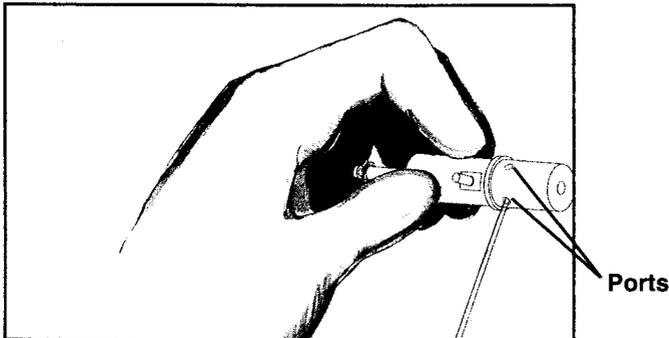
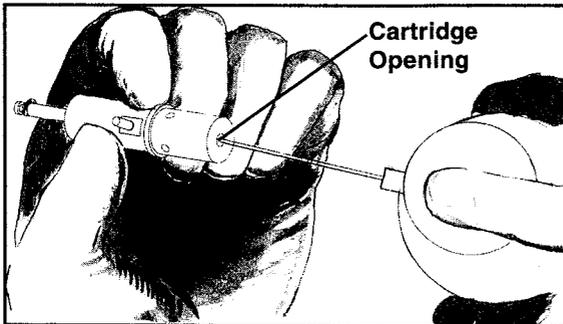
3. • Open the top clamp.  
• Remove the cartridge from the dispenser manifold. (Note how the valving rod fits into the slot, the retaining ring fits into the groove, and the aligning stud fits into the aligning hole.)



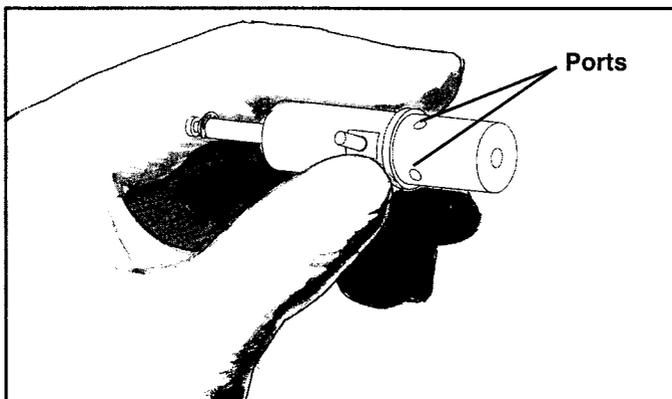
- 4.
- Unscrew the handle of the cartridge opening tool enough to allow the cartridge to fit in the tool. Hold the cartridge by the aligning stud and place the cartridge in the cartridge opening tool. (Align the valving rod end with the retaining slot, and the retaining ring with the groove.)
  - Turn the handle (as illustrated) until it stops. **Do not force the handle, as it will damage the tool and the cartridge.**
  - Remove the cartridge from the tool.



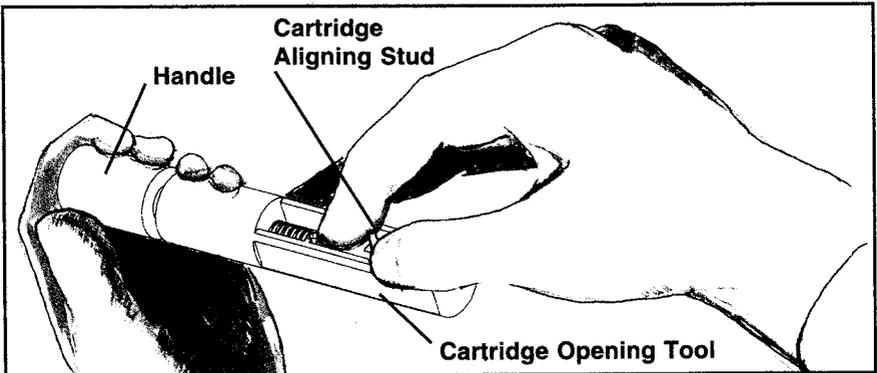
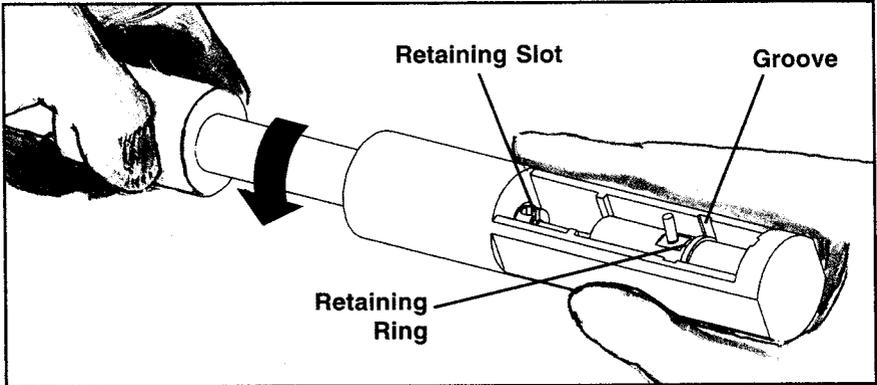
5. • Remove any debris from each port and the cartridge opening with the Instapak® port cleaning tool.



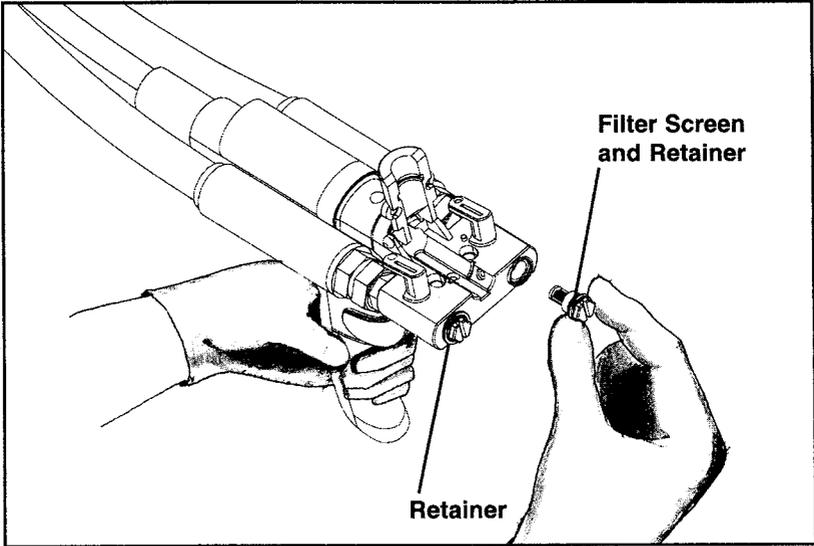
6. • Follow each cleaning with a solvent flush using Instapak® Port Cleaner.



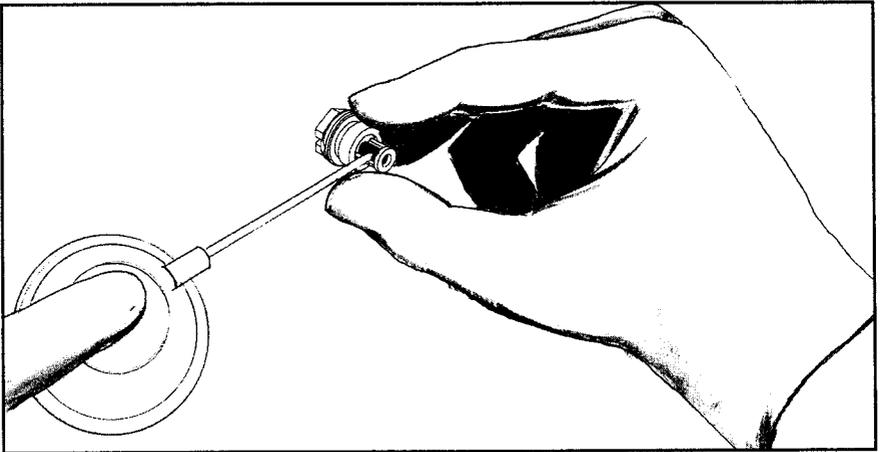
7.
  - Using the Instapak® port cleaning tool and/or toothpicks, remove any remaining debris from each port.
  - Follow with a solvent flush using Instapak® Port Cleaner.



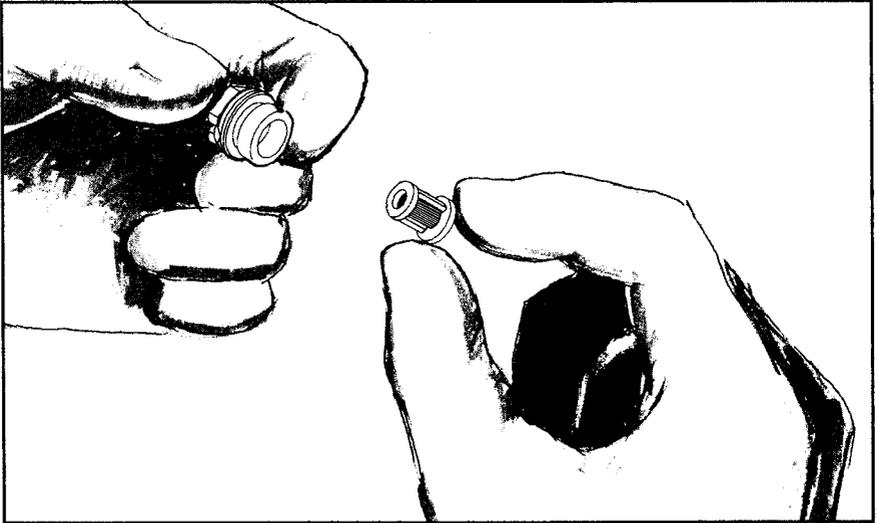
- 8.
- Hold the cartridge by the aligning stud and place the cartridge in the cartridge opening tool. (Align the valving rod end with the retaining slot, and the retaining ring with the groove.)
  - Turn the handle (as illustrated), fully close the cartridge, and remove. **Do not force the handle, as it will damage the tool and cartridge.**
  - **NEVER** leave the cartridge in the "OPEN" position.



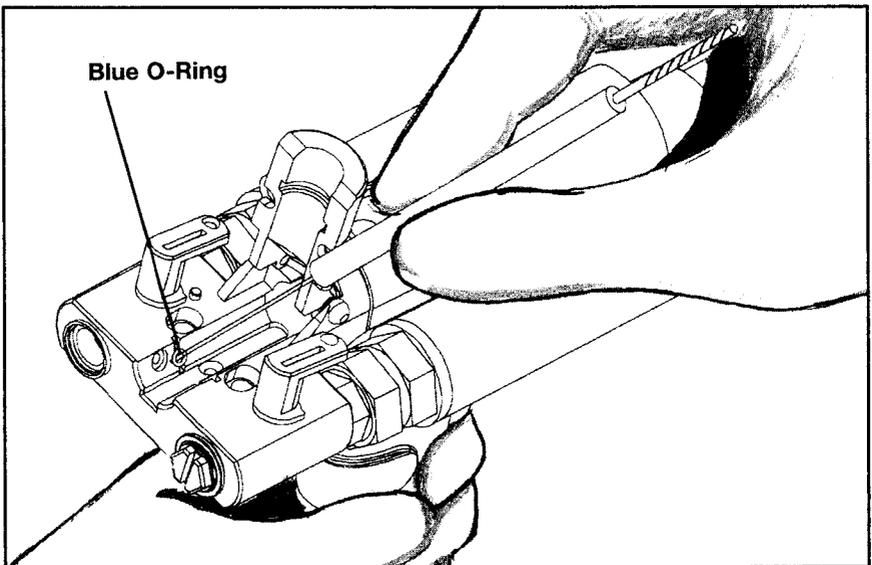
9. • Unscrew one of the filter screen retainers, using the Y-handle wrench, and remove the filter screen.



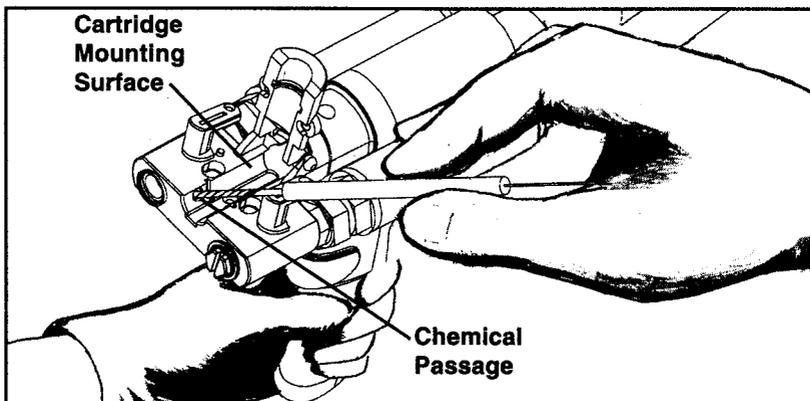
10. • Flush the filter screen with Instapak® Port Cleaner.



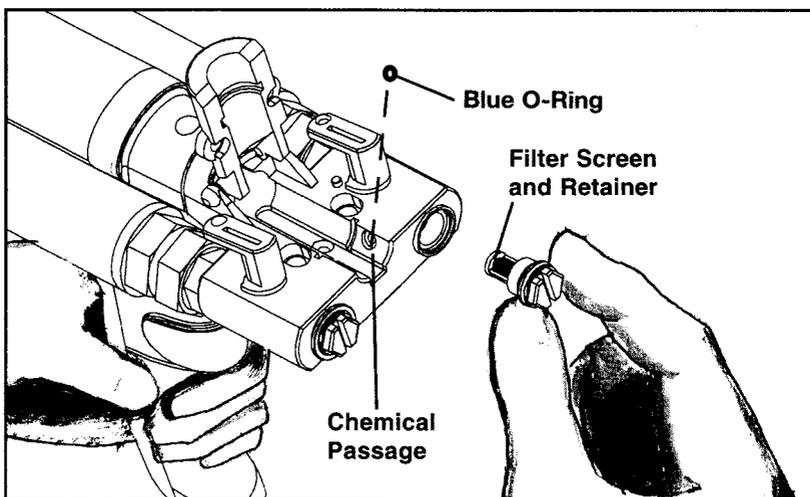
11. • Inspect and replace the Filter Screen if damaged or clogged.



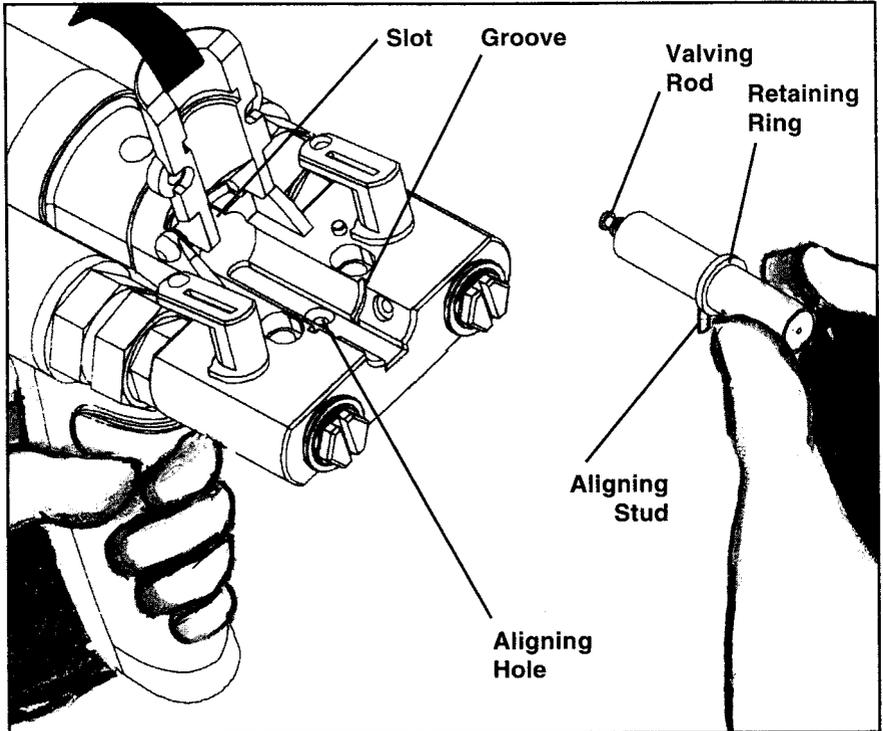
12. • Remove the blue O-ring.



- 13.
- Clean the chemical passage using the Instapak® port cleaning tool.
  - Clean the cartridge mounting surface thoroughly.
  - Use Instapak® Port Cleaner to flush the chemical passage after each cleaning.

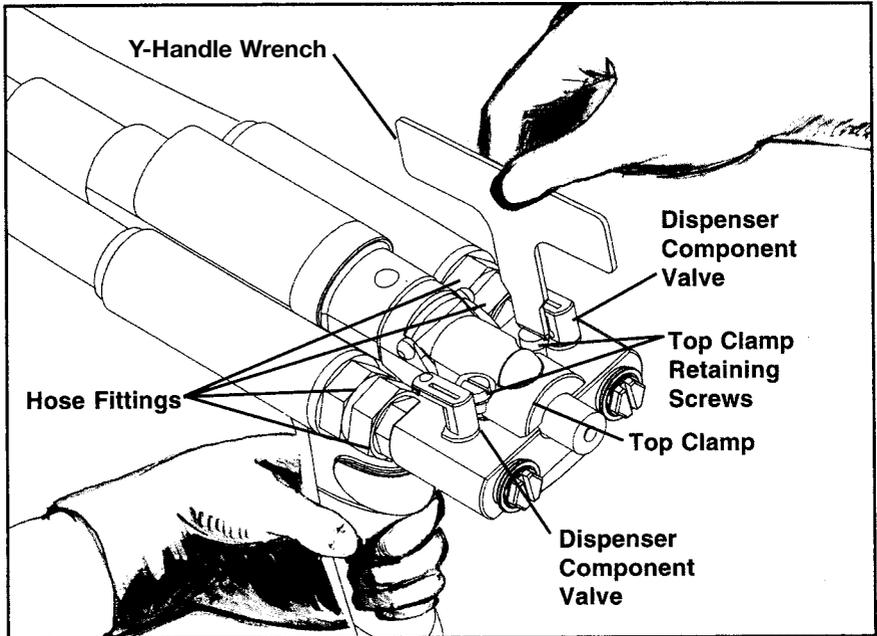


- 14.
- Reassemble the screen and retainer.
  - Repeat steps 9 - 13 for the other side.
  - Replace the two blue O-rings at the chemical passages.



15. • Install a clean cartridge. (Align the Valving Rod with the Slot, the Retaining Ring with the Groove, and the Aligning Stud with the Aligning Hole.)

**NOTE:** If the cartridge Valving Rod will not align with the Slot (Slot too far back) turn on power to system to reset dispenser. Turn system back off and try to reinstall cartridge.



- 16.
- Close the top clamp.
  - Tighten the top clamp retaining screws.
  - Make sure that the hose fittings are tight.
  - Open the component valves one at a time and check for leaks.
  - Turn console power "ON".
  - Allow system to go through the warm up procedure. Dispense foam and check quality.
  - If problems persist, call your Sealed Air® account representative for service assistance.

## 4.4 CHEMICAL DRUM REPLACEMENT

**CAUTION**

**SAFETY GLASSES AND PROTECTIVE GLOVES (BUTYL RUBBER, NITRILE RUBBER, POLYVINYL ALCOHOL, OR OTHER SUITABLE MATERIAL) MUST BE WORN WHILE PERFORMING THE FOLLOWING PROCEDURE.**

When one of the chemical containers is empty, one of the following messages will be shown in the display:

**SHUTDOWN CODE 41**

**A SIDE DRUM  
IS EMPTY**

**NOTE:**

901 systems only.

**SHUTDOWN CODE 42**

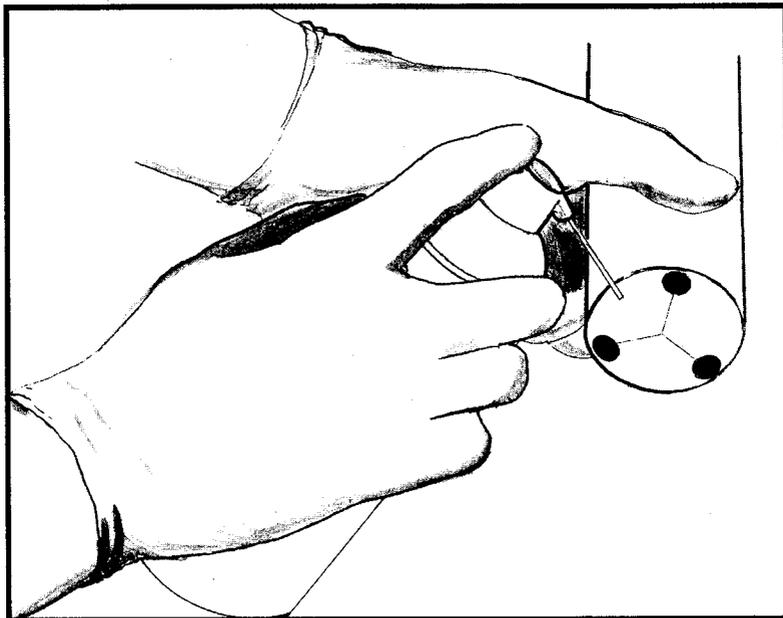
**B SIDE DRUM  
IS EMPTY**

1. • Turn the console power switch to "OFF".
2. • Place a full chemical drum next to the empty drum.
3. • Open the new drum.
4. • Remove the pump from the empty drum.

**CAUTION**

**DO NOT TURN THE PUMP UPSIDE DOWN. CHEMICAL CAN LEAK INTO THE PUMP MOTOR, CAUSING SEVERE DAMAGE.**

5.
  - Examine the filter on the bottom of the pump. Remove any clogs or dirt. Flush the filter with Instapak® Port Cleaner.



6.
  - Immediately put the pump into the full chemical drum. Be careful not to place an "A" pump in a "B" drum or vice versa. This will cause damage to the pump and will contaminate the full drum of chemical.

**NOTE:** If drum levels did not reset automatically to "FULL", press (+) key for 4 seconds to set "A" drum to **FULL** press (-) key for 4 seconds to set "B" drum to **FULL**.

7.
  - Recap the empty drum and remove.

#### **CAUTION**

**DO NOT LEAVE THE PUMP OUT OF THE DRUM. IF LEFT EXPOSED TO THE AIR, THE CHEMICALS MAY HARDEN, PERMANENTLY DAMAGING THE PUMP.**

NOTES

## 5.0 TROUBLESHOOTING

### 5.1 EQUIPMENT/SYSTEM ISSUES

This section lists some problems that might occur while dispensing foam, along with recommended solutions.

#### 5.1.1 EFFICIENT USE OF FOAM

- Avoid dispensing foam into rising foam. This will break the cell walls of the cured foam and not allow the foam to expand properly.
- Mold tools heat-up when used repeatedly. Foam will expand more in a warm mold than a cold one. This means that the same amount of foam that will fill a cold mold will overflow a warm mold. When using the timer function of the Instapak® 901/970, you can usually set the time at least 5% lower when the mold is warm.
- Use the Shot Sequence feature whenever possible when filling molds. This will provide consistency in cushion making and save overall packaging labor.

## 5.2 TROUBLESHOOTING CHARTS



**CAUTION**  
**SAFETY GLASSES AND PROTECTIVE GLOVES (BUTYL RUBBER, NITRILE RUBBER, POLYVINYL ALCOHOL, OR OTHER SUITABLE MATERIAL) MUST BE WORN WHILE PERFORMING THE FOLLOWING PROCEDURE.**

SYMPTOM	POSSIBLE CAUSE	RECOMMENDED SOLUTION
<p>1) Dispenser (cartridge) will not open or close fully when trigger is pulled.</p>	<ul style="list-style-type: none"> <li>• Dirty cartridge.</li> <li>• Jammed or improperly installed cartridge.</li> </ul>	<ul style="list-style-type: none"> <li>• Clean cartridge. Refer to Section 4.3.</li> <li>• Replace cartridge and replace O-rings. Refer to Section 4.3.</li> </ul>
<p>2) Foam is lighter in color, feels soft, and may shrink away from walls of box.</p>	<ul style="list-style-type: none"> <li>• The wrong cartridge is being used.</li> <li>• Dirty dispenser.</li> <li>• "A" pump filter is clogged.</li> <li>• The "B" TEMPERATURE is set too high.</li> </ul>	<ul style="list-style-type: none"> <li>• Check cartridge ID # number on the top of the cartridge. Is it correct for the foam type being used?</li> <li>• Clean dispenser. Refer to Section 4.3.</li> <li>• Turn the system OFF. Remove "A" pump from drum and wipe clean the filter on the bottom of "A" pump. Flush with Instapak® Port Cleaner. Refer to Section 4.4.</li> <li>• Decrease the "B" TEMPERATURE using the ADJUST keys. Refer to Section 2.3.3.2.</li> </ul>

<b>SYMPTOM</b>	<b>POSSIBLE CAUSE</b>	<b>RECOMMENDED SOLUTION</b>
<p>3) Only light amber or white Component "B" is being dispensed.</p>	<ul style="list-style-type: none"> <li>• Dirty dispenser.</li> <li>• "A" pump filter is clogged.</li> <li>• Air is trapped in "A" chemical hose.</li> </ul>	<ul style="list-style-type: none"> <li>• Clean dispenser. Refer to Section 4.3.</li> <li>• Clean "A" pump filter: Turn the system OFF . Remove "A" pump from drum and wipe clean the filter on bottom of "A" pump. Flush with Instapak® Port Cleaner. Refer to Section 4.4.</li> <li>• Have you just changed the Component "A" drum? Continue pressing RESET key to work trapped air through the system. Also see symptom # 9.</li> </ul>
<p>4) Foam is darker in color, feels crispy.</p>	<ul style="list-style-type: none"> <li>• The wrong cartridge is being used.</li> <li>• Dirty dispenser.</li> <li>• "B" pump filter is clogged.</li> <li>• The Component "B" has been stored or is being used at temperatures below 15°C.</li> <li>• The "A" TEMPERATURE is set too high.</li> </ul>	<ul style="list-style-type: none"> <li>• Check cartridge ID # number on the top of the cartridge. Is it correct for the foam type being used?</li> <li>• Clean dispenser. Refer to Section 4.3.</li> <li>• Turn the system OFF. Remove "B" pump from drum and wipe clean the filter on the bottom of "B" pump. Flush with Instapak® Port Cleaner. Refer to Section 4.4.</li> <li>• Call your Sealed Air® account representative.</li> <li>• Store Instapak® drum in an area heated to at least 15°C.</li> <li>• Decrease the "A" TEMPERATURE using the ADJUST keys. Refer to Section 2.3.3.1.</li> </ul>

<b>SYMPTOM</b>	<b>POSSIBLE CAUSE</b>	<b>RECOMMENDED SOLUTION</b>
5) Only dark brown Component "A" is being dispensed.	<ul style="list-style-type: none"> <li>• Dirty cartridge.</li> <li>• Clogged "B" pump filter.</li> <li>• Air is trapped in "B" chemical hose.</li> <li>• The Component "B" has been stored or is being used at temperatures below 15°C.</li> </ul>	<ul style="list-style-type: none"> <li>• Clean cartridge and manifold, replace filters and O-rings. Refer to Section 4.3.</li> <li>• Clean "B" pump filter. Turn the system OFF . Remove "B" pump from drum and wipe clean the filter on bottom of "B" pump. Flush with Instapak® Port Cleaner. Refer to Section 4.4.</li> <li>• Have you just changed the Component "B" drum? Continue pressing RESET key to work trapped air through the system. Also see symptom # 9.</li> <li>• Warm the drum of Component "B". Call your Sealed Air® account representative.</li> <li>• Store Instapak® drum in an area heated to at least 15°C.</li> </ul>
6) Foam sprays sideways or splatters when dispensed.	<ul style="list-style-type: none"> <li>• There is a build-up of foam on the cartridge tip.</li> <li>• Dirty cartridge.</li> <li>• The FLOW RATE is set too high.</li> </ul>	<ul style="list-style-type: none"> <li>• Clean cartridge by wiping tip on holster wire brush. Store dispenser in holster when not in use.</li> <li>• Clean dispenser. Refer to Section 4.3.</li> <li>• Reduce FLOW RATE using the ADJUST keys. Refer to Section 2.3.2.</li> </ul>

<b>SYMPTOM</b>	<b>POSSIBLE CAUSE</b>	<b>RECOMMENDED SOLUTION</b>
7) Chemical is leaking from dispenser.	<ul style="list-style-type: none"> <li>• The cartridge is loose or not aligned properly.</li> <li>• The dispenser manifold O-rings are missing or worn.</li> <li>• Loose component hose.</li> <li>• The filter retainer screws are loose or have missing or broken seals.</li> </ul>	<ul style="list-style-type: none"> <li>• Remove cartridge and re-install. Check that the key is properly aligned in the slot. Refer to Section 4.3.</li> <li>• Remove cartridge and install new O-rings. Refer to Section 4.3.</li> <li>• Tighten hose fittings.</li> <li>• Turn the chemical valves OFF. Remove the filter retainer screws, one at a time. Inspect the seals and replace if necessary. Re-tighten the filter retainer screws. Refer to Section 4.3.</li> </ul>
8) "A" DRUM EMPTY or "B" DRUM EMPTY (and there is chemical in the drums.)	<ul style="list-style-type: none"> <li>• Pump screen is clogged.</li> <li>• Air is trapped in the chemical hose.</li> </ul>	<ul style="list-style-type: none"> <li>• Turn the system OFF. Remove pump from drum and wipe clean the filter on the bottom of pump. Flush with Instapak® Port Cleaner. Refer to Section 4.4.</li> <li>• Continue pressing RESET button to work trapped air through the system. See also symptom # 9.</li> </ul>
9) System will not RESET.	<ul style="list-style-type: none"> <li>• There is an error which requires service by a Sealed Air® representative.</li> </ul>	<ul style="list-style-type: none"> <li>• Call your local Sealed Air® representative for service.</li> <li>• For "A" or "B" drum shutdowns ONLY or as noted above, turn the console OFF, then ON again.</li> </ul>

SYMPTOM	POSSIBLE CAUSE	RECOMMENDED SOLUTION
10) Foam shrinks.	<ul style="list-style-type: none"> <li>• Dirty cartridge or dispenser manifold.</li> <li>• Temperature of components too high.</li> </ul>	<ul style="list-style-type: none"> <li>• Clean and/or replace cartridge. Refer to Section 4.3.</li> <li>• Adjust the Component "A" and "B" temperatures lower by 3°C.</li> </ul>
11) Foam is too coarse.	<ul style="list-style-type: none"> <li>• Temperature of components too low.</li> </ul>	<ul style="list-style-type: none"> <li>• Adjust the Component "A" and "B" temperatures higher by 3°C.</li> </ul>
12) Foam collapses.		<ul style="list-style-type: none"> <li>• Call your local Sealed Air® representative for service.</li> </ul>
13) "A" side heater wire open thermistor.  "B" side heater wire open thermistor.	<ul style="list-style-type: none"> <li>• The temperature sensing circuit has failed.</li> </ul>	<ul style="list-style-type: none"> <li>• Press RESET key to restart system. The system will now dispense foam in a backup operating mode.</li> <li>• Call your local Sealed Air® representative for service.</li> </ul>
14) "A" side pressure exceeds 35 bar.  "B" side pressure exceeds 35 bar.	<ul style="list-style-type: none"> <li>• Dirty cartridge.</li> <li>• Jammed or improperly installed cartridge.</li> </ul>	<ul style="list-style-type: none"> <li>• Clean cartridge. Refer to Section 4.3.</li> <li>• Replace cartridge and O-rings. Refer to Section 4.3.</li> <li>• Call your local Sealed Air® representative for service.</li> </ul>

<b>SYMPTOM</b>	<b>POSSIBLE CAUSE</b>	<b>RECOMMENDED SOLUTION</b>
<p>15) Component "A" drum is empty.</p> <p>Component "B" drum is empty.</p>	<ul style="list-style-type: none"> <li>• The drum is empty.</li> <li>• Pump screen is clogged.</li> <li>• Air is trapped in the component hoses.</li> </ul>	<ul style="list-style-type: none"> <li>• Refer to Section 4.4 to change drums.</li> <li>• Turn the system OFF. Remove pump from drum and wipe clean the filter on the bottom of pump. Flush with Instapak® Port Cleaner. Refer to Section 4.4.</li> <li>• Continue pressing RESET key to work trapped air through the system. See also symptom "System will not RESET".</li> <li>• Call your local Sealed Air® representative for service.</li> </ul>
<p>16) Cartridge unable to Open.</p>	<ul style="list-style-type: none"> <li>• Dirty cartridge.</li> <li>• Jammed or improperly installed cartridge.</li> </ul>	<ul style="list-style-type: none"> <li>• Clean cartridge. Refer to Section 4.3.</li> <li>• Replace cartridge and O-rings. Refer to Section 4.3.</li> <li>• Call your local Sealed Air® representative for service.</li> </ul>
<p>17) Trigger switch is locked on.</p>	<ul style="list-style-type: none"> <li>• Trigger was pulled or was resting on something during system warm-up.</li> </ul>	<ul style="list-style-type: none"> <li>• Release trigger and press RESET key.</li> <li>• Call your local Sealed Air® representative for service.</li> </ul>

<b>SYMPTOM</b>	<b>POSSIBLE CAUSE</b>	<b>RECOMMENDED SOLUTION</b>
18) Cartridge unable to Close.	<ul style="list-style-type: none"><li>• Dirty cartridge.</li><li>• Jammed or improperly installed cartridge.</li></ul>	<ul style="list-style-type: none"><li>• Clean cartridge. Refer to Section 4.3.</li><li>• Replace cartridge and O-rings. Refer to Section 4.3.</li><li>• Call your local Sealed Air® representative for service.</li></ul>
19) System has gone into Energy Conservation Mode.	<ul style="list-style-type: none"><li>• The system has not been used for a certain amount of time and power to heaters is shut off.</li></ul>	<ul style="list-style-type: none"><li>• Press RESET key to restart system.</li></ul>

## 6.0 APPENDIX

### ACCESSORIES

1108AJ-01	Dispenser Holster Assembly
3476AB-01	Holster Brush
2038AB-01	Velcro® Strap, (1)
3466AA-01	Protective Gloves, Box of 100
3436AA-01	Safety Glasses
3307AA-01	Poly Knife
3315AA-02	Bung Wrench
3315AG-01	Work Apron, (Pack of 12)
5105AA-01	Material Safety Data Sheet (Dispenser Solution)
5105AA-04	Material Safety Data Sheet (Port Cleaner)
5105AB-01	Safe Use/Handling Bulletin (Chemicals)
6017AC-02	Tool, Cartridge Opener
6113AN-01	Y-Handle Wrench
7045AE-02	Port Cleaning Tool with Drill Bit

### SUPPLIES

1095AF-02	Instapak® Dispenser Solution, (1 gallon)
7025AA-04	Instapak® Port Cleaner, Four aerosol cans

### PARTS

2046AC-01	Cartridge O-Rings
2110AM-02	Dispenser Filter Screens
3352AP-13	Dispenser Filter O-Rings
1033AE-01	“A” Dispenser Filter Cap
1033AE-02	“B” Dispenser Filter Cap
2110AN-02	Pump Filter Screen
2024AJ-02	Pump Filter Screen Gasket

## **Customer Service Locations**

### **Sealed Air**

Protective Packaging  
Lindhoutseweg 45, 6545 AH Nijmegen, The Netherlands  
Tel: +31 (0)24 3710111 Fax: +31 (0)24 3710101

### **Customer Service Locations**

- Czech Republic, Prague +420 2 20199551
- France, Joigny +33 (0)3 86920431
- Germany, Alsfeld +49 (0)6631 96680
- Greece, Shimatari Viotias +30 2620 32551
- Hungary, Újhartyán +36 29 573300
- Italy, Bellusco +39 039 6835306
- The Netherlands, Nijmegen +31 (0)24 3710150
- Poland, Ozarów Mazowiecki +48 (0)22 7217530
- South Africa, Spartan +27 (0)11 9234600
- Spain, Abrera +34 93 7738325
- Sweden, Aneby +46 (0)380 47100
- UK, Kettering +44 (0)1536 315700

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